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### **FEB EXAM**

# **D0H52A/D0T96A – Managerial Economics**

## (SOME SAMPLE EXAM QUESTIONS)

Professor Dr. Otto Toivanen 20/06/2012

#### Instructions for students:

- Please write your identification info (student name, nr) on every page
- Maximum duration: 3 hours (from official starting hour of the exam)
- Exam type: written, closed book
- Only the following auxiliary materials are allowed:
  - Writing tools
  - Dictionary
  - Non-graphic calculator
- Students are allowed to use their own pen, but should only use the paper provided by the university. Other papers, notebooks, etc. are not allowed.
- Mobile telephones and electronic devices should be handed to the supervisors who will keep them
  for you until the end of the exam. All material such as jackets, backpacks, books and own paper
  should be left at the back or the front of examination room.
- For any irregularity of a student, all articles in the irregularities-section of the exam regulations apply.
- Carefully read the question before you start writing
- Answers can be given in English or Dutch.
  - Answers on the Multiple Choice Questions should be indicated on the electronic answering sheet.
  - Answers on the quantitative and qualitative questions should be given on the attached sheets in the answering boxes. Only answers within these spaces will be read.
- If you believe that some information is missing to answer a question, clearly specify your assumption and complete the question.
- Before starting, please check that you have 7 pages (excluding the two front pages) with 10 MPC questions, 2 qualitative and 2 quantitative questions. Immediately ask the surveyor for another bundle if this is not the case. Please do not detach any pages from this bundle.
- There are 32 points to be gained.

Good luck!

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#### **Multiple Choice Questions**

#### **SERIES 1 (REEKS 1)**

Clearly indicate the correct answer on the electronic answering sheet.

Do not forget to indicate your SERIES NUMBER (nummer vragenreeks), 1, in the upper right corner of the electronic answering sheet!

If you do not know the correct answer: indicate (8)



Please note that only one answer is correct. You are punished for guessing, which means that you get +1 for every question that you answer correctly, 0 if you leave it blank and -1/3 if your answer is wrong.

- 1. A monopolist facing two markets with different price elasticities will
  - a. price independently of the difference in the price elasticity
  - b. use a uniform price
  - c. set a higher price in the market with the higher price elasticity
  - d. set a higher price in the market with the lower price elasticity
- 2. In indirect segment discrimination, the firm
  - a. utilizes the incentive compatibility constraint
  - b. needs to be able to prevent resale
  - c. uses differential prices within different identifiable customer segments
  - d. forces low valuation consumers to buy a low-quality good
- 3. For there to be economies of scale, it is necessary that
  - a. there are fixed costs of production
  - b. there are decreasing marginal costs
  - c. there are economies of scope
  - d. none of the above

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4. A monopolist faces two markets with the following demand curves:

Market A: 
$$Q_A = 10 - P_A$$

Market B: 
$$Q_B = 6 - P_B$$

The marginal cost of production is constant and equal to one. The optimal price(s) is/are:

a. 
$$P_A = P_B = 8.5$$

b. 
$$P_A = P_B = 8$$

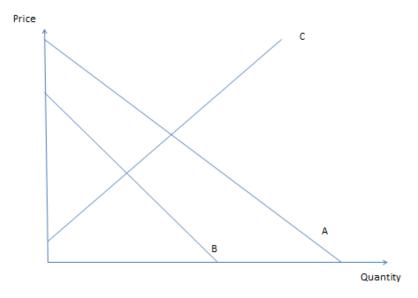
c. 
$$P_A = 4.5$$
 and  $P_B = 2.5$ 

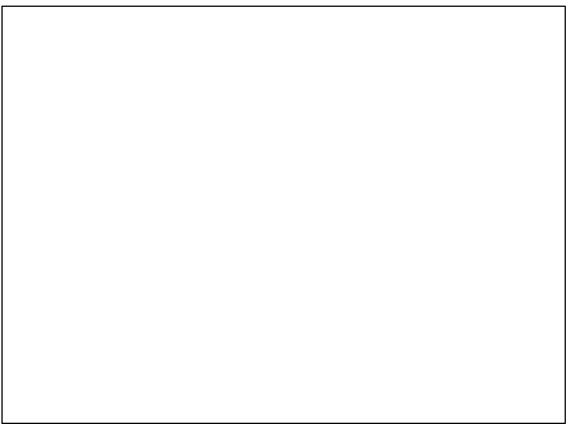
d. 
$$P_A = 5.5$$
 and  $P_B = 3.5$ 

- 5. A start-up company with zero sales and profits is thinking of starting an R&D project. The cost is 1 Mio euro. The project succeeds, i.e., a new good is invented, with probability 0.5. If the project fails, no new product is invented and nothing useful comes out of the project. Obviously, not starting the project yields zero profit. To sell anything at all, an advertising campaign is needed. An advertising campaign costing 2 Mio euro will yield profits (gross of advertising expenditure) of 5 Mio euro if the R&D project succeeded. The question is when to commit to the advertising campaign. How much at most would the firm be willing to pay for the ability to decide whether or not to advertise *after* it knows the outcome of the R&D project, instead of committing to advertising *before* it knows the outcome of the R&D project?
  - a. 1 Mio euro
  - b. 0.5 Mio euro
  - c. 2 Mio euro
  - d. 3 Mio euro

## **Qualitative Questions**

1. The following diagram depicts the situation in the international ship freight market which is competitive. The downward sloping curve "A" is the (initial) demand curve. The upward sloping line "C" is the short run supply curve. Explain what would happen in the short and in the long run if demand contracted from curve "A" to curve "B". Explain the difference (or the lack of it) between the short and the long run. You can use the figure to clarify your answer (5 points).





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2.	Explain the differences in outcome when a monopolist uses a uniform price and when he is ab practice complete price discrimination (CPD) <b>(6 points).</b>	le to			

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#### **Quantitative Questions**

1. Bundling. Consider the following situation. You need to decide how to price the two channels offered by your company, "High-tech" providing programs on engineering, science and technology, and "Wildlife" providing, well, wild-life programs. You know that you have two customer groups, "Geeks" and "Regular". For every customer group, the number of customers and their willignesses to pay are displayed in the table below. Explain how you would price and why? What are your profits from the different pricing strategies? Your marginal cost is zero for both channels (7 points).

		products	
	Number of customers	High-tech	Wildlife
Geeks	3000	15	4
Regular	10000	3	8

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